

AMENDMENTS TO THE CLAIMS

Claims 1 to 25 (Cancelled)

26. (Previously Presented) An isolated nucleic acid molecule comprising a polynucleotide sequence selected from the group consisting of:

(a) an isolated polynucleotide encoding a polypeptide comprising amino acids 1 to 665 of SEQ ID NO:109; and

(b) an isolated polynucleotide encoding a polypeptide comprising amino acids 2 to 665 of SEQ ID NO:109.

27. (Previously Presented) The isolated nucleic acid molecule of claim 26, wherein said polynucleotide is (a).

28. (Previously Presented) The isolated nucleic acid molecule of claim 27, wherein said polynucleotide comprises nucleotides 538 to 2532 of SEQ ID NO:108.

29. (Previously Presented) The isolated nucleic acid molecule of claim 26, wherein said polynucleotide is (b).

30. (Previously Presented) The isolated nucleic acid molecule of claim 29, wherein said polynucleotide comprises nucleotides 541 to 2532 of SEQ ID NO:108.

31. (Cancelled)

32. (Cancelled).

33. (Canceled).

34. (Cancelled).

35. (Cancelled).

36. (Cancelled).

37. (Cancelled).

38. (Previously Presented) A recombinant vector comprising the isolated nucleic acid molecule of claim 26.

39. (Previously Presented) A recombinant host cell comprising the vector sequence of claim 38.

40. (Previously Presented) A method of making an isolated polypeptide comprising:

(a) culturing the recombinant host cell of claim 39 under conditions such that said polypeptide is expressed; and

(b) recovering said polypeptide.

41. (Previously Presented) The isolated polynucleotide of claim 26 wherein said nucleic acid sequence further comprises a heterologous nucleic acid sequence.

42. (Previously Presented) The isolated polynucleotide of claim 41 wherein said heterologous nucleic acid sequence encodes a heterologous polypeptide.

43. (Previously Presented) The isolated polynucleotide of claim 42 wherein said heterologous polypeptide is the Fc domain of immunoglobulin.

44. (Previously Presented) An isolated nucleic acid molecule comprising a polynucleotide selected from the group consisting of:

(a) a polynucleotide comprising the cDNA clone contained in plasmid RET31 in ATCC Deposit No. PTA-3434; and

(b) a polynucleotide comprising the cDNA clone contained in plasmid BMY_HPP5 in ATCC Deposit No. PTA-2966.

45. (Previously Presented) The isolated polynucleotide of claim 44 wherein said nucleic acid sequence further comprises a heterologous nucleic acid sequence.

46. (Previously Presented) The isolated polynucleotide of claim 45 wherein said heterologous nucleic acid sequence encodes a heterologous polypeptide.

47. (Previously Presented) The isolated polynucleotide of claim 46 wherein said heterologous polypeptide is the Fc domain of immunoglobulin.

48. (Cancelled)

49. (Cancelled)

50. (Cancelled)

51. (Cancelled)

52. (Cancelled)

53. (Cancelled)

54. (Cancelled)

55. (Cancelled)

56. (Cancelled).

57. (Previously Presented) An isolated polynucleotide comprising a polynucleotide encoding amino acids 2 to 665 of SEQ ID NO:109 comprising amino acid substitutions at amino acid residue 180, at amino acid residue 193, at amino acid residue 293, and at amino acid residue 315, wherein the substitute amino acid at amino acid residue 180 is methionine, the substitute amino acid at amino acid residue 193 is asparagine, the substitute amino acid at amino acid residue 293 is alanine, and the substitute amino acid at amino acid residue 315 is proline, and wherein said polypeptide has phosphatase activity, or is catalytically inactive yet retains ability to bind to a phosphoprotein substrate.

58. (Previously Presented) An isolated polynucleotide comprising a polynucleotide encoding amino acids 2 to 665 of SEQ ID NO:109 comprising amino acid substitutions at amino acid residue 5, at amino acid residue 180, at amino acid residue 193, at amino acid residue 284, at amino acid residue 302, and at amino acid residue 584, wherein the substitute amino acid at amino acid residue 5 represents an amino acid deletion at this position, the substitute amino acid at amino acid residue 180 is methionine, the substitute amino acid at amino acid residue 193 is asparagine, the substitute amino acid at amino acid residue 284 is serine, the substitute amino acid at amino acid residue 302 is alanine, and the substitute amino acid at amino acid residue 584 is arginine, and wherein said polypeptide has phosphatase activity.

59. (Previously Presented) An isolated polynucleotide comprising a polynucleotide encoding amino acids 2 to 665 of SEQ ID NO:109 comprising amino acid substitutions at amino acid residue 5, at amino acid residue 6, at amino acid residue 180, at amino acid residue 193, and at amino acid residue 284, wherein the substitute amino acid at amino acid residue 5 is isoleucine, the substitute amino acid at amino acid residue 6 is valine, the substitute amino acid at amino acid residue 180 is methionine, the substitute amino acid at amino acid residue 193 is asparagine, and the substitute amino acid at amino acid residue 284 is serine, and wherein said polypeptide has phosphatase activity.

60. (Previously Presented) An isolated polynucleotide encoding a polypeptide comprising amino acids 1 to 302 of SEQ ID NO:109.

61. (Previously Presented) The isolated nucleic acid molecule of claim 60, wherein said polynucleotide comprises nucleotides 538 to 1443 of SEQ ID NO:108.

62. (Previously Presented) An isolated polynucleotide encoding a polypeptide comprising amino acids 2 to 302 of SEQ ID NO:109.

63. (Previously Presented) The isolated nucleic acid molecule of claim 62, wherein said polynucleotide comprises nucleotides 541 to 1443 of SEQ ID NO:108.

64. (Previously Presented) An isolated polynucleotide encoding a polypeptide comprising at least 473 contiguous amino acids of SEQ ID NO:109, wherein said polypeptide comprising at least 473 contiguous amino acids of SEQ ID NO:109 has phosphatase activity.

65. (Previously Presented) The isolated nucleic acid molecule of claim 64, wherein said polynucleotide comprises at least 1419 contiguous nucleotides of SEQ ID NO:108.

66. (Previously Presented) An isolated polynucleotide which represents the complementary sequence of:

- (a) the isolated polynucleotide (a) of claim 26;
- (b) the isolated polynucleotide (b) of claim 26;
- (c) the isolated polynucleotide of claim 60;
- (d) the isolated polynucleotide of claim 62; or
- (e) the isolated polynucleotide of claim 64.

67. (Previously Presented) An isolated polynucleotide encoding a polypeptide comprising amino acids 1 to 302 of SEQ ID NO:109, wherein said encoded polypeptide comprises amino acid substitutions at amino acid residue 5, at amino acid residue 6, at amino acid residue 180, at amino acid residue 193, and at amino acid residue 284, wherein the substitute amino acid at amino acid residue 5 is isoleucine, the substitute amino acid at amino acid residue 6 is valine, the substitute amino acid at amino acid residue 180 is methionine, the substitute amino acid at amino acid residue 193 is asparagine, and the substitute amino acid at amino residue 284 is serine, wherein said polypeptide has phosphatase activity.

68. (Currently Amended) An isolated polynucleotide encoding a polypeptide comprising amino acids 2 to 302 of SEQ ID NO:109, wherein said encoded polypeptide comprises amino acid substitutions at amino acid residue 5, ~~at amino acid residue 6,~~ at amino acid residue 180, at amino acid residue 193, ~~and at amino acid residue 284,~~ and at amino acid residue 302, wherein the substitute amino acid at amino acid residue 5 ~~is isoleucine~~ represents an amino acid deletion at this position, ~~the substitute amino acid at amino acid residue 6 is valine,~~ the substitute amino acid at amino acid residue 180 is methionine, the substitute amino acid at amino acid residue 193 is

asparagine, ~~and~~ the substitute amino acid at amino residue 284 is serine, and the substitute amino acid at amino acid residue 302 is alanine, wherein said polypeptide has phosphatase activity.

69. (Previously Presented) An isolated polynucleotide encoding a polypeptide comprising amino acids 2 to 302 of SEQ ID NO:109, wherein said encoded polypeptide comprises amino acid substitutions at amino acid residue 180, at amino acid residue 193, and at amino acid residue 293, wherein the substitute amino acid at amino acid residue 180 is methionine, the substitute amino acid at amino acid residue 193 is asparagine, and the substitute amino acid at amino residue 293 is alanine, wherein said polypeptide has phosphatase activity.